

ATTACHMENT A

- 1. (Currently Amended) A propylene copolymer composition comprising:
 - A) a propylene <u>homopolymer; polymer containing from</u>

 0 to 10% by weight of olefins other than

 propylene and
 - B) at least one propylene copolymer containing from 12 to 18% by weight of at least one olefin olefins other than propylene,

where the propylene homopolymer polymer A and the propylene copolymer B are present as separate phases, the weight ratio of propylene homopolymer polymer A to the propylene copolymer B is from 80:20 to 60:40 and the propylene copolymer composition has a haze value of ≤ 30%, based on a path length of the propylene copolymer composition of 1 mm, and the brittle/tough transition temperature of the propylene copolymer composition is ≤ -15°C, and the propylene copolymer composition is multiphase polymerization obtained from a metallocene compound, wherein the comprising a metallocene compound is used in each polymerization phase.

2. (Cancelled)

- 3. (Currently Amended) The propylene copolymer composition as claimed in claim 1, wherein the propylene <a href="https://doi.org/10.1001/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/journa.2007/j
- 4. (Currently Amended) The propylene copolymer composition as claimed in claim 1, wherein the olefin other than propylene in the propylene copolymer A), the propylene copolymer B), or both is ethylene.
- 5. (Previously Presented) The propylene copolymer composition as claimed in claim 1, wherein the value for stress whitening, determined by the dome method at 23°C, is from 0 to 8 mm.
- 6. (canceled)
- 7. (Previously Presented) The propylene copolymer composition as claimed in claim 1, wherein the copolymer B is dispersed in finely divided form in the matrix A.
- 8. (canceled)
- 9. (Previously Presented) The propylene copolymer composition as claimed in claim 1, comprising from 0.1 to 1% by weight, based on the total weight of the propylene copolymer composition, of a nucleating agent.
- 10. (Previously Presented) The propylene copolymer composition as claimed in claim 1, wherein a glass transition temperature of the propylene copolymer B

determined by means of DMTA (dynamic mechanical thermal analysis) is in the range from -20°C to -40°C.

- 11. (Currently Amended) The propylene copolymer composition as claimed in claim 1, wherein a ratio of the shear viscosity of propylene copolymer B to that of propylene homopolymer polymer A at a shear rate of 100 s⁻¹ is in the range from 0.3 to 2.5.
- 12. (Previously Presented) The propylene copolymer composition as claimed in claim 1, wherein a molar mass distribution $M_{\rm w}/M_{\rm n}$ is in the range from 1.5 to 3.5.
- 13. (Currently Amended) A process for preparing a propylene copolymer composition comprising:
 - A) a propylene <u>homopolymer;</u> polymer containing from 0 to 10% by weight of olefins other than propylene and
 - B) at least one propylene copolymer containing from 12 to 18% by weight of at least one olefin olefins other than propylene,

where the propylene <u>homopolymer</u> polymer A and the propylene copolymer B are present as separate phases, the weight ratio of propylene <u>homopolymer</u> polymer A to the propylene copolymer B is from 80:20 to 60:40 and the propylene copolymer composition has a haze value of ≤ 30%, based on a path length of the propylene copolymer composition of 1 mm, and the brittle/tough transition

temperature of the propylene copolymer composition is ≤ -15°C;

the process comprising polymerizing monomers in a multistage polymerization with a catalyst system based on metallocene compounds.

- 14. (Currently Amended) A process comprising producing a fiber, film or molding from a propylene copolymer composition, the process comprising extruding, injection-molding, or combination thereof, the propylene copolymer composition, the propylene copolymer composition comprising
 - A) a propylene <u>homopolymer;</u> polymer containing from 0 to 10% by weight of olefins other than propylene and
 - B) at least one propylene copolymer containing from 12 to 18% by weight of at least one olefin olefins other than propylene,

where the propylene <u>homopolymer polymer</u> A and the propylene copolymer B are present as separate phases, the weight ratio of propylene <u>homopolymer polymer</u> A to the propylene copolymer B is from 80:20 to 60:40 and the propylene copolymer composition has a haze value of $\leq 30\%$, based on a path length of the propylene copolymer composition of 1 mm, and the brittle/tough transition temperature of the propylene copolymer composition is ≤ -15 °C, and the

propylene copolymer composition is obtained from a multiphase polymerization process comprising a metallocene compound, wherein the metallocene compound is used in each polymerization phase.

- 15. (Currently Amended) A fiber, film or molding comprising a propylene copolymer composition comprising:
 - A) a propylene <u>homopolymer;</u> polymer containing from

 0 to 10% by weight of olefins other than

 propylene and
 - B) at least one propylene copolymer containing from 12 to 18% by weight of at least one olefin olefins other than propylene,

where the propylene homopolymer polymer A and the propylene copolymer B are present as separate phases, the weight ratio of propylene homopolymer polymer A to the propylene copolymer B is from 80:20 to 60:40 and the propylene copolymer composition has a haze value of ≤ 30%, based on a path length of the propylene copolymer composition of 1 mm, the brittle/tough transition temperature of and ≤ -15°C, propylene copolymer composition is and the propylene copolymer composition obtained from is multiphase polymerization process comprising a metallocene compound, wherein the metallocene compound is used in each polymerization phase.

16. (Previously Presented) The propylene copolymer composition as claimed in claim 1, wherein the metallocene compound comprises formula (I):

wherein

- M is zirconium, hafnium or titanium;
- are identical or different and are each, independently of one another, hydrogen, halogen, -R, -OR, $-OSO_2CF_3$, -OCOR, -SR, $-NR_2$, $-PR_2$, or an -OR'O- group, or two X may be joined to one another;
- R is linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted with at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond;

- R' is a divalent group selected from the group consisting of C_1 - C_{40} -alkylidene, C_6 - C_{40} -arylidene, C_7 - C_{40} -alkylidene; and C_7 - C_{40} -arylalkylidene;
- is a divalent bridging group selected from the group L consisting of C₁-C₂₀-alkylidene radicals, cycloalkylidene radicals, C₆-C₂₀-arylidene radicals, C₇-C₂₀-alkylarylidene radicals, and C7-C20arylalkylidene radicals, silylidene or a comprising up to 5 silicon atoms, and wherein L optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements;
- R^1 is linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R^1 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of the Elements, or at least one unsaturated bond;
- R^2 is $-C(R^3)_2R^4$;
- R^3 are identical or different and are each, independently of one another, linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R^3 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond, or two

 R^3 may be joined to form a saturated or unsaturated $C_3-C_{20}-\text{ring}$;

 R^4 is hydrogen or linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalky, wherein R^4 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond;

T and T' are divalent groups of formula (II), (III), (IV), (V) or (V),

wherein

the atoms denoted by symbols * and ** are joined to the atoms of formula (I) which are denoted by the same symbol;

 R^5 are identical or different and are each, independently of one another, hydrogen, halogen, linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 -

 C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R^5 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond; and

- R⁶ are identical or different and are each, independently of one another, halogen, linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R⁶ optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of the Elements, or at least one unsaturated bond;
- 17. (Previously Presented) The propylene copolymer composition as claimed in claim 16, wherein R^6 is an aryl group of formula (VII),

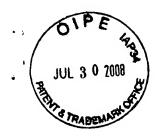
$$R^7$$
 R^7
 R^8
(VII)

wherein

 R^7 are identical or different and are each, independently of one another, hydrogen, halogen, linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 -

 C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R^7 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond, or two R^7 may be joined to form a saturated or unsaturated C_3 - C_{20} ring; and

- R⁸ is hydrogen, halogen, linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R⁸ optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond;
- 18. (Previously Presented) The propylene copolymer composition as claimed in claim 17, wherein
 - R^8 is $-C(R^9)_3$; and
 - R^9 are identical or different and are each, independently of one another, a linear or branched $C_1\text{-}C_6\text{-}alkyl$ group, or two or three of R^9 are joined to form at least one ring system.



ATTACHMENT B

1-16 (Cancelled)

- 17. (Previously Presented) A propylene copolymer composition comprising:
 - A) a propylene copolymer containing from 1 to 20% by weight of olefins other than propylene and
 - B) at least one propylene copolymer containing from 10 to 30% by weight of olefins other than propylene,

where the propylene copolymer A and the propylene copolymer B are present as separate phases and a portion of n-hexane soluble material is $\leq 2.6\%$ by weight, and the propylene copolymer composition is obtained from a two-stage or multistage polymerization process comprising a catalyst system comprising a metallocene compound, wherein the catalyst system is used in each polymerization stage.

- 18. (Previously Presented) The propylene copolymer composition as claimed in claim 17, wherein the propylene copolymer composition has a haze value of ≤ 30% and a tensile E modulus is in the range from 100 to 1500 MPa.
- 19. (Previously Presented) The propylene copolymer composition as claimed in claim 17, wherein the olefin other than propylene in the propylene copolymer A), the propylene copolymer B), or both is ethylene.

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- 20. (Previously Presented) The propylene copolymer composition as claimed in claim 17, wherein a weight ratio of propylene copolymer A to propylene copolymer B is in the range from 90:10 to 20:80.
- 21. (Previously Presented) The propylene copolymer composition as claimed in claim 17, comprising from 0.1 to 1% by weight, based on the total weight of the propylene copolymer composition, of a nucleating agent.
- 22. (Previously Presented) The propylene copolymer composition as claimed in claim 17, wherein a glass transition temperature of the propylene copolymer B determined by means of DMTA (dynamic mechanical thermal analysis) is in the range from -20°C to -40°C.
- 23. (Previously Presented) The propylene copolymer composition as claimed in claim 17, wherein a molar mass distribution Mw/Mn is in the range from 1.5 to 3.5.
- 24 (Previously Presented) The propylene copolymer composition as claimed in claim 17 which has a number average molecular mass Mn in the range from 50,000 g/mol to 500,000 g/mol.
- 25. (Previously Presented) A process for preparing a propylene copolymer composition comprising:
 - A) a propylene copolymer containing from 1 to 20% by weight of olefins other than propylene and

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B) at least one propylene copolymer containing from 10 to 30% by weight of olefins other than propylene,

where the propylene copolymer A and the propylene copolymer B are present as separate phases and a portion of n-hexane soluble material is \leq 2.6 % by weight;

the process comprising polymerizing monomers in a multistage polymerization comprising at least two successive polymerization stages and a catalyst system comprising a metallocene compound, wherein the catalyst system is used in each polymerization stage.

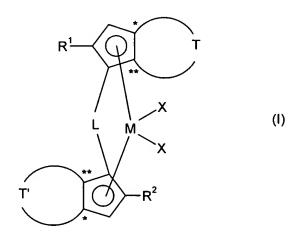
- (Previously Presented) A process comprising producing 26. fibers, films or moldings from a propylene copolymer the comprising extruding, composition, process combination thereof, the injection-molding, orthe propylene copolymer composition, propylene copolymer composition comprising:
 - A) a propylene copolymer containing from 1 to 20% by weight of olefins other than propylene and
 - B) at least one propylene copolymer containing from 10 to 30% by weight of olefins other than propylene,

where the propylene copolymer A and the propylene copolymer B are present as separate phases and a portion of n-hexane soluble material is ≤ 2.6 % by weight, and the propylene copolymer composition is obtained from a two-stage or multistage polymerization process comprising a catalyst system comprising a metallocene compound, wherein the catalyst system is used in each polymerization stage.

- 27. (Previously Presented) A fiber, film or molding comprising a propylene copolymer composition comprising
 - A) a propylene copolymer containing from 1 to 20% by weight of olefins other than propylene and
 - B) at least one propylene copolymer containing from 10 to 30% by weight of olefins other than propylene,

where the propylene copolymer A and the propylene copolymer B are present as separate phases and a portion of n-hexane soluble material is ≤ 2.6 % by weight, and the propylene copolymer composition is obtained from a two-stage or multistage polymerization process comprising a catalyst system comprising a metallocene compound, wherein the catalyst system is used in each polymerization stage.

28. (Previously Presented) The propylene copolymer composition as claimed in claim 17, wherein the metallocene compound comprises formula (I):



wherein

- M is zirconium, hafnium or titanium;
- X are identical or different and are each, independently of one another, hydrogen, halogen, -R, -OR, $-OSO_2CF_3$, -OCOR, -SR, $-NR_2$, $-PR_2$, or an -OR'O- group, or two X may be joined to one another;
- R is linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted with at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond;
- R' is a divalent group selected from the group consisting of C_1 - C_{40} -alkylidene, C_6 - C_{40} -arylidene, C_7 - C_{40} -alkylidene; and C_7 - C_{40} -arylalkylidene;
- L is a divalent bridging group selected from the group consisting of C_1 - C_{20} -alkylidene radicals, C_3 - C_{20} -cycloalkylidene radicals, C_6 - C_{20} -arylidene radicals, C_7 - C_{20} -alkylarylidene radicals, and C_7 - C_{20} -arylalkylidene radicals, or a silylidene group comprising up to 5 silicon atoms, and wherein L optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements;
- is linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R^1 optionally comprises at least

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one heteroatom of groups 13-17 of the Periodic Table of the Elements, or at least one unsaturated bond;

- R^2 is $-C(R^3)_2R^4$;
- R³ are identical or different and are each, independently of one another, linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R³ optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond, or two R³ may be joined to form a saturated or unsaturated C_3 - C_{20} -ring;
- R^4 is hydrogen or linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalky, wherein R^4 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond;
- T and T' are divalent groups of formula (II), (III), (IV), $(V) \ \, \text{or} \ \, (VI) \, ,$

wherein

the atoms denoted by symbols * and ** are joined to the atoms of formula (I) which are denoted by the same symbol;

 R^5 are identical or different and are each, independently of one another, hydrogen, halogen, linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R^5 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond; and

are identical or different and are each, independently of one another, halogen, linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R^6 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of the Elements, or at least one unsaturated bond;

29. (Previously Presented) The propylene copolymer composition as claimed in claim 28, wherein R^6 is an aryl group of formula (VII),

$$R^7$$
 R^7
 R^8
(VII)

wherein

- R^7 are identical or different and are each, independently of one another, hydrogen, halogen, linear or branched C_1 - C_{20} -alkyl, C_3 - C_{20} -cycloalkyl optionally substituted by at least one C_1 - C_{10} -alkyl radical, C_6 - C_{20} -aryl, C_7 - C_{20} -alkylaryl, or C_7 - C_{20} -arylalkyl, wherein R^7 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond, or two R^7 may be joined to form a saturated or unsaturated C_3 - C_{20} ring; and
- is hydrogen, halogen, linear or branched C_1-C_{20} -alkyl, C_3-C_{20} -cycloalkyl optionally substituted by at least one C_1-C_{10} -alkyl radical, C_6-C_{20} -aryl, C_7-C_{20} -alkylaryl, or C_7-C_{20} -arylalkyl, wherein R^8 optionally comprises at least one heteroatom of groups 13-17 of the Periodic Table of Elements, or at least one unsaturated bond;
- 30. (Previously Presented) The propylene copolymer composition as claimed in claim 29, wherein

$$R^8$$
 is $-C(R^9)_3$; and

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 R^9 are identical or different and are each, independently of one another, a linear or branched $C_1\text{-}C_6\text{-}alkyl$ group, or two or three of R^9 are joined to form at least one ring system.